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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,710	07/28/2006	Ludwig Brehm	1093-160 PCT/US	1065

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EXAMINER

EFTA, ALEX B

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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04/19/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,710	Applicant(s) BREHM, LUDWIG	
	Examiner ALEX EFTA	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 19-28 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 is/are allowed.
- 6) ☐ Claim(s) 1-3 and 5-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Summary

1. This is a FINAL action on the merits.
2. Claims 1-18 are pending.
3. Claims 19-28 are withdrawn.
4. The Terminal Disclaimer has been DISAPPROVED.

Response to Arguments

5. Applicant's arguments filed 1/28/2010 have been fully considered but they are not persuasive.

a. The Applicant argues that, "[t]here is clearly no suggestion in Schmitz that some of the elements of the security feature need not be assembled on the transfer foil, but rather can already be present on the security document." The Examiner respectfully traverses this argument. Specifically, the Applicant is either failing to recognize the application of *In re Japikse* in the Office Action dated 10/28/2009 or, the Applicant is attacking the references individually by not addressing Schmitz in view of Kaule.

b. The Applicant argues that, "Schmitz fails to disclose that the radiation-curable adhesive is a crosslinkable adhesive." The Examiner respectfully traverses this argument. Specifically, the Applicant is attacking the references individually by not addressing Schmitz in view of Kaule.

c. The Applicant argues that, "Schmitz relates to a laminating foil which is placed in its entirety onto a security document. Thus, this can in no way be

interpreted as a process where the magnetic layer remains on the first film body in a first region structured in pattern form and in a second region structured in a pattern form the magnetic layer remains on the carrier film and is removed with the carrier film from the first film body as recited in Claim 1.” The Examiner would like to point out that Claim 1 recites, “the adhesive layer of the radiation-crosslinkable adhesive is hardened structured in pattern form by a procedure whereby the **adhesive layer is at least one of**”, and thereafter lists three different ways in which the adhesive is hardened. The claim language of Claim 1 requires that **one** of these ways is necessary and the others are therefore **optional**. The combination of references rejecting Claim 1 meet the limitations pertaining to option a) where magnetic material is not required to remain on the carrier film once the magnetic layer is adhered to the document.

d. The Applicant argues that, “Schmitz may disclose the application of the magnetic layer in limited areas, it clearly does not disclose the application onto the security document by means of removing only limited portions of the magnetic layer as recited in Claim 2.” The Examiner respectfully traverses this argument. Specifically, Schmitz specifically discloses that the transfer foil can be provided with the security element layer structured all over and the latter detached and transferred from the all-over coating only in the desired areas by selective activation of the adhesive (Column 4, lines 43 through 51). Therefore, Schmitz teaches application by removing only limited portions of the magnetic layer.

Art Unit: 1791

e. The Applicant argues that, "there is simply no teaching or suggestion in either Schmitz or Kaule with regard to alternative b) as recited in Claim 1."

Alternative b) is an **alternative** to alternative a). Claim 1 only requires that one of these alternatives is used. The combination of references for the rejection of Claim 1 meets the limitations of alternative a).

Terminal Disclaimer

6. The terminal disclaimer filed on 1/28/2010 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 10/576,098 has been reviewed and is NOT accepted.

7. The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c) because:

It does not include a recitation that any patent granted shall be enforceable only for and during such period that said patent is commonly owned with the application(s) or patent(s) which formed the basis for the double patenting rejection. See 37 CFR 1.321(c)(3).

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory

Art Unit: 1791

double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1-4, 6 and 13-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11 and 20 of copending Application No. 10576,098 in view of PLASCHKA et al. (WO 00/50249) as translated by PLASCHKA et al. (US 7,040,663) and SCHMITZ et al. (US 6,491,324).

3. Claims 1 and 2 of the instant application are unpatentable over claim 1 of '098 and PLASCHKA et al.. Specifically claim 1 of '089 discloses each method steps of claims 1 and 2 of the instant application. '089 does not specifically state that the electrical component/electrical functional layer is a partial magnetic coating. However, PLASCHKA et al. discloses a document of value such as a paper of value or ID card with a security element having an optically variable material. The security element has at least one machine readable feature substance that does not impair the visually visible optically variable effect of the optically variable material (Abstract). As a feature substance one can use for example luminescent substances, electrically conductive polymers or carbon blacks, IR-absorbent substances, but also magnetic material or thermochromic materials (Column 2, lines 1 through 6). Therefore, electrically conductive polymers, carbon blacks and magnetic material are obvious variants and one having ordinary skill in the art, at the time of the invention, would have considered using conductive polymers, carbon blacks and magnetic materials for security elements of '089 as taught by PLASCHKA et al. so as to prevent forgery of value documents.

Art Unit: 1791

Furthermore, SCHMITZ et al. discloses that the security feature, discloses as a magnetic layer, may be applied in the shape of a bar code (Column 2, lines 45 through 50). Therefore, one having ordinary skill in the art, at the time of the invention, would appreciate that the magnetic layer may be a partial magnetic layer so as to provide additional security features to documents of value.

4. With respect to claim 3 of the instant application, please refer to the rejection of claims 1 and 2 above. Furthermore, claim 3 is rendered obvious over claims 1 and 8 of '089 and PLASCHKA et al. specifically, claims 1 and 8, together, of '089 discloses each positive method steps of claim 3 of the instant application.

5. With respect to claim 4 of the instant application, claim 2 of '089 discloses a method that encompasses the limitations of claim 4 of the instant application while PLASCHKA et al. discloses the obvious variants for security features.

6. With respect to claim 6 of the instant application, claim 10 of '089 discloses limitations encompassing those of claim 6 and therefore, claim 6 is rendered obvious.

7. With respect to claims 13 through 18 of the instant application, claims 7, 8, 20, 4, 5 and 11, respectively, of '089 discloses limitations encompassing those of claims 13 through 18 and therefore, claims 13 through 18 are rendered obvious.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1791

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 5, 12-15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHMITZ et al. (US 6,491,324) in view of KAULE et al. (US 5,820,971).

10. With respect to claim 1 and more specifically 1 a), SCHMITZ et al. discloses a security element for protecting objects which has at least one mechanically testable magnetic layer and at least one further layer consisting of a layer semitransparent in the visual spectral region. The invention further relates to a security document with such a security element (Abstract). In its simplest embodiment, the security element therefore consists of a magnetic layer and a semitransparent layer covering the magnetic layer (Column 2, lines 7 through 10). The semitransparent layer of the security element is formed by a screened layer, the individual screen elements being opaque, preferably metallic. The screen elements can have any desired form. One can use standard geometric shapes such as dots, lines, triangles, etc., as well as special patterns, umbers, letters, etc. The screen width is selected so as to effect a sufficient cover of the magnetic layer while any information present under the screened layer simultaneously also remains recognizable (Column 2, lines 30 through 40). The optically variable layers can, as shown in the figures, be embossed diffraction structures representing for example cinegrams, moviegrams, or holograms (Column 8, lines 15 through 20). The magnetic layer can be provided either all over or only in certain areas independently of the kind of cover layer used. According to a preferred embodiment, the magnetic layer is applied in the form of a coding, In particular a bar code. However, the magnetic layer

Art Unit: 1791

can also contain gaps in the form of visually and/or machine recognizable characters (Column 2, lines 44 through 53). The security element can be incorporated at least partly into a security document. It is also conceivable, however, to form the security element in a band or label shape and fasten it to the surface of an object (Column 3, lines 1 through 8). The term "security document" is not restricted to bank notes however. It can refer to any document of value such as a check, share, ID card or the like (Column 4, lines 5 through 10). If the security element is to be provided only as a thin layer sequence on the security document, it is useful to prepare the layer sequence of the security element separately on a foil material and subsequently transfer it to the document (Column 4, lines 16 through 24). The carrier, for example is a transparent plastic foil, is provided in a first step, if necessary, with separation layer which ensures that the layer structure of security element can be detached from the carrier after transfer to the security document. One then applied to separation layer first cover layer semitransparent in the visible spectral region, followed by magnetic layer. One finally provides over the magnetic layer the adhesive layer for fastening layer structure to the document. This layer can be for example a hot-melt adhesive or radiation-curable adhesive (Column 4, lines 25 through 37). If the label-like security elements are to be transferred in certain places with the aid of such a transfer foil, the transfer foil can be provided with the security element layer structure all over and the latter detached and transferred from the all-over coating only in the desired areas, e.g. by selective activation of the adhesive. Alternatively, the carrier material can already be provided with the desired single elements in spaced-apart areas (Column 4, lines 43 through 51).

Art Unit: 1791

SCHMITZ et al. does not specifically state that the radiation-curable adhesive is a cross linkable adhesive. However, KAULE et al. discloses a security document such as a bank note, identity card or the like, that includes at least one multilayer security element made of at least two layers of reaction lacquer or adhesive between which diffraction structures, in particular holographic structures, exist in the form of a relief. A reflective layer is additionally disposed between the layers of lacquer. The reaction lacquer of adhesive is the type curable or cross-linkable under physical (e.g. radiation) and/or chemical activation (Abstract). It is possible to produce embossed holograms directly on the antifalsification paper with the aid of light-curing substances in very uncomplicated fashion. Such substances are e.g. blue light-curing or delayed-curing lacquers (Column 2, lines 42 through 47). The firm compound with the document arises from the use of reaction lacquers or adhesives which adhere irreversibly to the document (Column 2, lines 59 through 63). Therefore, it would have been obvious to one having ordinary skill in the art, at the time of the invention, to use a radiation cross linkable adhesive on the magnetic layer of SCHMITZ et al. as taught by KAULE et al. so as to provide and irreversible bond between the document and security element thereby preventing falsification of value documents. SCHMITZ et al. does not specifically state that the adhesive is applied to a first film body while the magnetic coating is applied to a second film body. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) states that mere rearrangement of parts is held unpatentable because applying the adhesive to the second film body e.g. bank note, instead of the carrier would not have modified the operation of the device. Alternatively, KAULE et al. discloses that the bank not paper,

Art Unit: 1791

already printed, exist in web form and is coated locally with a special reaction adhesive in a printing unit (Column 5, lines 12 through 17). Therefore, one having ordinary skill in the art, at the time of the invention, would have considered placing the adhesive on the bank note of SCHMITZ et al. as taught by KAULE et al. so as to selectively apply the security feature to a desired part of the note. Therefore, the adhesive is implicitly applied in a pattern on the note and is irradiated to bond the security element to the document.

11. With respect to claim 2, please refer to the rejection of claim 1. Furthermore, SCHMITZ et al. discloses that the magnetic layer can be provided either all over or only in certain areas independently of the kind of cover layer used. According to a preferred embodiment, the magnetic layer is applied in the form of a coding, In particular a bar code. However, the magnetic layer can also contain gaps in the form of visually and/or machine recognizable characters (Column 2, lines 44 through 53). If the label-like security elements are to be transferred in certain places with the aid of such a transfer foil, the transfer foil can be provided with the security element layer structure all over and the latter detached and transferred from the all-over coating only in the desired areas, e.g. by selective activation of the adhesive. Alternatively, the carrier material can already be provided with the desired single elements in spaced-apart areas (Column 4, lines 43 through 51). The magnetic layer is provided additionally with gaps in the form of characters, patterns or the like (Column 5, lines 15 through 20). SCHMITZ et al. does not specifically state that the adhesive is printed to the document. However, KAULE et al. discloses that the adhesive is printed to the document (Column 5, lines 15 through

Art Unit: 1791

19). Therefore, one having ordinary skill in the art, at the time of the invention, would have considered applying the adhesive to the document by printing. Furthermore, SCHMITZ et al. discloses that the transfer material may be patterned on the carrier and therefore, one having ordinary skill in the art, at the time of the invention, would appreciate that the adhesive may be applied in a pattern, corresponding to the pattern on the carrier, on the document. Alternatively, one having ordinary skill in the art, at the time of the invention, would appreciate placing the adhesive over an entire area corresponding to the area of the document to receive the security element. Thereafter, the carrier with the security element layer structured all over can be placed against the adhesive and selectively adhered. In this alternative, the adhesive is implicitly applied in a pattern as a design to receive the security element. Furthermore, the security element, having the partial magnetic coating, is removed in a second region where the adhesive is not cured, and thus hardened. *In re Soli*, 317 F.2d 941, 137 USPQ 797 (CCPA 1963) states that the rationale to support a rejection under 35 U.S.C. 103 may rely on logic and sound scientific principle. Furthermore, *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) states that rearrangement of parts is obvious to one having ordinary skill in the art if the doing so does not modify the operation of the device. As described above, SCHMITZ et al. discloses that the patterned magnetic layer has the adhesive thereon and is selectively transferred to the document. Placing the adhesive layer on the document and selectively transferring the security element would not have modified the function of the secured document and would have been obvious to one

Art Unit: 1791

having ordinary skill in the art, as evidenced by KAULE et al. (Column 5, lines 15 through 19, Abstract).

12. With respect to claim 3, please refer to the rejection of claims 1 and 2.

Furthermore, SCHMITZ et al. discloses that if the label-like security elements are to be transferred in certain places with the aid of such a transfer foil, the transfer foil can be provided with the security element layer structure all over and the latter detached and transferred from the all-over coating only in the desired areas, e.g. by selective activation of the adhesive. Alternatively, the carrier material can already be provided with the desired single elements in spaced-apart areas (Column 4, lines 43 through 51). The magnetic layer is provided additionally with gaps in the form of characters, patterns or the like (Column 5, lines 15 through 20). SCHMITZ et al. does not specifically state that the adhesive is printed to the document. However, KAULE et al. discloses that the adhesive is printed to the document (Column 5, lines 15 through 19). Therefore, one having ordinary skill in the art, at the time of the invention, would have considered applying the adhesive to the document by printing. Furthermore, SCHMITZ et al. discloses that the transfer material may be patterned on the carrier and therefore, one having ordinary skill in the art, at the time of the invention, would appreciate that the adhesive may be applied in a pattern, corresponding to the pattern on the carrier, on the document. Alternatively, one having ordinary skill in the art, at the time of the invention, would appreciate placing the adhesive over an entire area corresponding to the area of the document to receive the security element and selectively transferring the partial magnetic coating to that area. Additionally, the pattern of the adhesive layer, and

Art Unit: 1791

subsequent security element, is subject to design choice. Irradiating the adhesive to form the desired security pattern, such as a bar code, may be accomplished by flooding the surface of the document with irradiation or only irradiating those areas to have the security element. By flooding the surface of the document, the irradiation may overlap and extend beyond the edges of the adhesive layer thereby irradiating the patterned adhesive with a different pattern. SCHMITZ et al. does not specifically state that the adhesive force between the magnetic layer and the carrier is higher than the non-hardened adhesive and the magnetic layer. However, SCHMITZ et al. cures the adhesive to transfer the magnetic layer. Therefore, absent any evidence to the contrary, the adhesive force between the non-cured adhesive is implicitly lower than the adhesive force between the carrier and the magnetic layer.

13. With respect to claim 5, please refer to the rejection of claim 3. Furthermore, SCHMITZ et al. does not specifically state that the adhesive regions which have not yet hardened are hardened in a second step. However, by placing the adhesive over the document and selectively attaching the security element in a pattern of the desired security element, areas of adhesive may implicitly be left uncured. Specifically, the adhesive may be applied over an area and then the security element applied over top. Activation of the adhesive in the shape of a bar code may be done to transfer the security element while the areas having no transfer may be left uncured. Thereafter, the uncured areas would have to be hardened so as to prevent dust and other impurities from sticking thereto.

Art Unit: 1791

14. With respect to claim 12, SCHMITZ et al. does not specifically state that the adhesive is irradiated through the carrier. However, SCHMITZ et al. discloses that the carrier is a transparent plastic foil (Column 4, lines 24 through 30) and that the magnetic layer is provided additionally with gaps in the form of characters, patterns or the like and the carrier is translucent or transparent. This permits gaps to be recognized as highly contrasting characters in the surroundings formed by opaque magnetic material when viewed in transmitted light (Column 5, lines 15 through 25). Furthermore, the adhesive is radiation-curable (Column 4, lines 34 through 38). Therefore, one having ordinary skill in the art, at the time of the invention, would appreciate that the adhesive may be irradiated through the carrier.

15. With respect to claim 13, SCHMITZ et al. does not specifically state that the adhesive is exposed through the document. However, KAULE et al. discloses that adhesives can also use blue light-curing reaction adhesives. This method variant is shown in Fig. 5. Paper web is provided with the blue light-curing reaction adhesive in the printing unit (Column 5, lines 48 through 55). The transfer material and the paper web are brought into contact and irradiated with blue light. The reaction adhesive thereby cures within seconds since the paper is permeable to blue light. The transfer foil can then be removed from the hologram-paper compound in the usual way (Column 5, lines 56 through 60). Therefore, it would have been obvious to one having ordinary skill in the art, at the time of the invention, to use blue light-curing adhesive to bond the security element to the document of SCHMITZ et al. as taught by KAULE et al. so as to irreversibly attach the security element from the document. Subsequently, one having

Art Unit: 1791

ordinary skill in the art, at the time of the invention, would have considered radiating through the document to cure the adhesive.

16. With respect to claim 14, SCHMITZ et al. does not specifically state that the adhesive force between the magnetic layer and the carrier is higher than the non-hardened adhesive and the magnetic layer. However, SCHMITZ et al. cures the adhesive to transfer the magnetic layer. Therefore, absent any evidence to the contrary, the adhesive force between the non-cured adhesive is implicitly lower than the adhesive force between the carrier and the magnetic layer.

17. With respect to claim 15, SCHMITZ et al. discloses that the adhesive is a radiation-curable adhesive (Column 4, lines 34 through 38). SCHMITZ et al. does not specifically state that the adhesive is a non-conducting adhesive. However, absent any evidence to the contrary, the adhesive of SCHMITZ et al. is implicitly non-conductive as there is no evidence from SCHMITZ et al. to indicate so.

18. With respect to claim 18, SCHMITZ et al. discloses that the carrier is provided with a separation layer between the carrier and magnetic layer (Column 4, lines 24 through 37).

19. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over SCHMITZ et al. (US 6,491,324) in view of KAULE et al. (US 5,820,971) as applied to claims 1-3, 5, 12-15, and 18 above, and further in view of MULLEN et al. (US 20040190102)..

20. With respect to claim 6, modified SCHMITZ et al. discloses that the adhesive is a radiation-curable adhesive. Additionally, SCHMITZ et al. discloses that the carrier material can already be provided with the desired single elements in spaced-apart areas

Art Unit: 1791

(Column 4, lines 43 through 51). Modified SCHMITZ et al. does not specifically state that the irradiation is done using a mask. However, MULLEN et al. discloses a differentially-cured process that can be used to form security coatings, for example, coatings on documents or currency papers, fibers, threads, films, identification cards, or wrapping film for expensive products (Paragraph [0086]). Fig. 1 illustrates an embodiment of the present invention for forming a pattern, such as exemplary pattern "ABC" provided by, for example, a mask or pattern layer disposed between a radiation source and a radiation curable material (Paragraph [0042]). Therefore, it would have been obvious to one having ordinary skill in the art, at the time of the invention, to provide a mask to radiate the adhesive of SCHMITZ et al. as taught by MULLEN et al. so as to accurately cure the adhesive pattern to form the security element on the document.

21. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHMITZ et al. (US 6,491,324) in view of KAULE et al. (US 5,820,971) as applied to claims 1-3, 5, 12-15, and 18 above, and further in view of YADAV (US 20040256986).

22. With respect to claim 7, modified SCHMITZ et al. discloses that the magnetic layer can either be printed (e.g. by screen printing) or applied by coating methods (Column 8, lines 33 through 38). Modified SCHMITZ et al. does not specifically state that the magnetic layer is a layer of magnetic particles. However, YADAV discloses that nanopigments provide color and magnetic performance and can be applied to an article of ceramic, adhesive, paper, fiber, ink or polymeric art. Such colored magnetic nanopigments may be used to create superior security documents, bar codes, inventory

Art Unit: 1791

tracking technologies, theft prevention tolls, quality assurance, and safety products appealing to customers (Paragraph [0152]. The powders are nanoscale (Paragraph [0150]). Therefore, it would have been obvious to one having ordinary skill in the art, at the time of the invention, to use nanoscale magnetic particles for the magnetic layer of SCHMITZ et al. as taught by YADAV so as to provide superior security features for documents of value.

23. With respect to claim 8, modified SCHMITZ et al. discloses that the magnetic layer may be coated onto the carrier (Column 8, lines 33 through 38) and implicitly from a solution. YADAV discloses that the magnetic particles are nanoscale. Therefore, one having ordinary skill in the art, at the time of the invention, would appreciate that the coating of SCHMITZ et al. may contain nanoscale magnetic particles as taught by YADAV so as to provide superior security features for documents of value.

24. With respect to claim 9, modified SCHMITZ et al. discloses that the magnetic layer can either be printed (e.g. by screen printing) or applied by coating methods (Column 8, lines 33 through 38). Modified SCHMITZ et al. does not specifically state that the magnetic layer is applied by sputtering. However, YADAV discloses that the film can be coated by spin coating, dip coating, spray coating, ion beam coating, plasma coating, and sputtering (Paragraph [0120]). Therefore, one having ordinary skill in the art, at the time of the invention, would appreciate coating the carrier with the magnetic layer of SCHMITZ et al. by sputtering so as to apply the magnetic layer entirely over the carrier.

Art Unit: 1791

25. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHMITZ et al. (US 6,491,324) in view of KAULE et al. (US 5,820,971) as applied to claims 1-3, 5, 12-15, and 18 above, and further in view of POWER et al. (EP 0953937).

26. With respect to claims 10 and 11, modified SCHMITZ et al. discloses that a magnetic layer is printed or coated onto the carrier. Modified SCHMITZ et al. does not specifically state that the magnetic material is an amorphous metal class. However, POWER et al. discloses a security element comprising a magnetic layer and an embossed layer so as to avoid counterfeiting of value documents (Abstract (Item 57)). The soft-magnetic amorphous metal glass thin film coating may be deposited by sputtering to achieve the desired magnetic properties (Paragraph [0053]). The soft-magnetic layer consists essentially of an alloy containing cobalt, iron, silicon and boron (Paragraph [0042]). A soft-magnetic material only shows magnetic properties when exposed to a magnetic field while hard-magnetic materials show permanent magnetic properties (Paragraph [0017]). Therefore, it would have been obvious to one having ordinary skill in the art, at the time of the invention, to use soft-magnetic materials for the security element of SCHMITZ et al. as taught by POWER et al. so as to provide greater security for documents of value. Additionally, it would have been obvious to one having ordinary skill in the art, at the time of the invention, to sputter the layer of magnetic material of SCHMITZ et al. as taught by POWER et al. so as to provide the desired magnetic properties thereby allowing for tailoring of the security feature and providing for greater security of the document of value.

Art Unit: 1791

27. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHMITZ et al. (US 6,491,324) in view of KAULE et al. (US 5,820,971) as applied to claims 1-3, 5, 12-15, and 18 above, and further in view of HARRIS et al. (WO 99/65699).

28. With respect to claims 16 and 17, modified SCHMITZ et al. discloses that the magnetic layer can be provided in the form of characters, patterns or the like (Column 5, lines 15 through 25) and that the security element, containing the magnetic pattern, are secured to the document by a radiation-curable adhesive (Column 4, lines 30 through 38). KAULE et al. discloses that the bank not paper is coated locally with a special reaction adhesive in a printing unit. The adhesive can be treated like an ink before activation (Column 5, lines 15 through 20). Modified SCHMITZ et al. does not specifically state that the adhesive can be applied to the document by intaglio or flexographic printing. However, HARRIS et al. discloses a method of providing an optically variable effect generating structure and an image on a substrate (Page 1, lines 1 through 5). Optically variable effect generating structures such as diffraction gratings and holograms are frequently used both for decorative and security purposes. In particular, such structures are used on security documents such as identification cards, banknotes and the like to enable such substrates to be authenticated (Page 1, lines 6 through 15). The first state in the process involves the depositing of an adhesive. The adhesive must be printable, preferable to form high resolution images. It is possible to use UV cationic curing resins. The quantity of adhesive applied is also important. Too little and incomplete coverable may occur. Too much and the adhesive will pass

Art Unit: 1791

between the first layer of tin particles and bind additional layers, resulting in unnecessary material usage (Page 4, lines 15 through 35). The adhesive may be printed using conventional printing techniques such as flexography and intaglio printing (Page 5, lines 9 through 15). Therefore, it would have been obvious to use intaglio or flexographic printing to apply the adhesive to the document of modified SCHMITZ et al. as taught by HARRIS et al. so as to provide high resolution images and to prevent unnecessary material usage.

Allowable Subject Matter

29. Claim 4 allowed.

30. The following is a statement of reasons for the indication of allowable subject matter: Claim 4 requires that the magnetic layer remains on the first film body in the first region which is structured in pattern form and in which the adhesive layer is not hardened and is removed with the carrier film in the second region which is structured in pattern form and in which the adhesive is hardened. SCHMITZ et al. does not specifically suggest transferring the security element to the uncured regions while separating the security element, with the carrier, in the cured regions. Furthermore, KAULE et al. discloses curing the adhesive prior to placing the security element and document together in a delayed curing method (Column 5, lines 15 through 45). The transferred material adheres to the adhesive that has been cured while the untransferred material is removed with the carrier. HARRIS et al. discloses applying the security element either to a cured or uncured adhesive (Page 4, lines 15 through 35). The prior art of record does not specifically teach transferring the magnetic layer to the

Art Unit: 1791

uncured adhesive, per se, while separating the magnetic material, along with the adhesive, in contact with the cured adhesive.

Conclusion

31. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX EFTA whose telephone number is (571)270-7604. The examiner can normally be reached on Mon-Thurs 6:00am-4pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on (571)272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ALEX EFTA/
Examiner, Art Unit 1791

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1791